

Application No.: 10/811,876

AMENDMENT TO THE SPECIFICATION

Please amend the paragraph bridging pages 19 and 20 as follows:

After the formation of the insulating film 11, a contact hole is formed at a specified position within the region where the semiconductor layer of the substrate 10 is formed. An aluminum film and a titanium film are formed to cover the entire surface of the substrate 10 and this multiple layered film is processed to form the source signal lines 5 integral with the source electrode of the TFT 9 and the pixel electrodes 6 integral with the drain electrode of the TFT 9.

Please amend the only full paragraph on page 20 as follows:

In this way, the overcoat film 12, which is made from silicon nitride or the like and covers the surface of the substrate 10 having the signal lines and the electrodes thereon, is formed, and the apertures 13 are formed by selectively removing the overcoat film 12 at specified positions within the regions where the gate signal lines 4 are formed. At the same time, the overcoat film 12 formed on the peripheral edge of the substrate 10 is removed as necessary, to expose a connector terminal (not shown) that is placed for connection between the signal lines formed there and an external driving circuit. Thereafter, the alignment layer 16 made from polyimide or the like is formed on the surface of the substrate 10 in a specified manner and the array substrate having the apertures 13 (such as shown in Figure 1) at which part of the respective gate signal lines 4 is in contact with the alignment layer 16 is obtained.

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Please amend the paragraph bridging pages 20 and 21 as follows:

Where the gate signal lines 4 are exposed by removing the overcoat film and the alignment layer with a laser such as described in Background Art, electrons also move from the gate signal lines 4 to the liquid crystal layer 18 so that liquid crystal molecules are ionized. However, the ionized liquid crystal molecules, in this case, are likely to be accumulated at the exposed portions of the gate signal lines 4, because the exposed portions of the gate signal lines 4 are small. The accumulation of the ionized liquid crystal molecules at the exposed portions of the gate signal lines 4 causes variations in ion concentration, which can be the cause of display unevenness. In the case of the present embodiment, electrons move from the gate signal lines 4 to the liquid crystal layer 18 through an extremely thin alignment layer 16, the gate signal lines 4 being supplied with a negative voltage at all times except when the TFT 9 is in its ON state. Therefore, liquid crystal molecules are ionized (i.e., anionization) and the ionized liquid crystal molecules extensively disperse throughout the liquid crystal layer 18 so that the ion concentration of the liquid crystal layer 18 becomes uniform as a whole (i.e., variations in ion concentration are eliminated). This is thought to be the reason why display unevenness does not occur in the present embodiment.

Please amend the third full paragraph on page 23 as follows:

In contrast with the conventional fabrication method, the present embodiment does not require an additional process. More specifically, in the step of exposing the connector terminal, which is used for connection between the signal lines and the external driving circuit, from the overcoat film 12, the apertures 13 may be formed at the same time. The liquid crystal screen display of the present embodiment capable of restraining occurrence of display unevenness can be

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attained only by changing the configuration of the mask used in the step of processing the overcoat film **[[13*]] 12** in the conventional fabrication process.

Please amend the first full paragraph on page 25 as follows:

The third electrode 17 is in contact with the alignment layer **[[18*]] 16** and its potential is set equal to the OFF potential (i.e., the potential of the gate signal lines 4 when the TFT 9 connected to it is in the OFF state). For instance, the potential of the pixel electrodes 6 is reversed at $\pm 5V$ with respect to the common electrodes 7 when the panel is in service and the common electrodes 7 are grounded (0V). While the panel is driven, the third electrode 17 is maintained at -10V and minus ions are constantly generated.

Please amend the second full paragraph on page 29 as follows:

Figure 8 shows an array substrate for use in another liquid crystal screen display according to the fourth embodiment. The array substrate 2 is similar to that of the third embodiment, including the ion generation apertures 13a in the regions where the gate signal lines 4 are disposed and the ion retrieval aperture 13b positioned immediately above the common electrode line 8. As shown in Figures 9a, 9b and 9c, the opposed substrate 3 used for the panel 1 has the third electrode 17 having a potential equal to the potential of the common electrodes. The third electrode 17 is positioned in contact with the liquid crystal layer **[[16*]] 18** to retrieve ions.

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Please amend the third full paragraph on page 30 as follows:

A common electrode 7 is comprised of a first common electrode 7a and a second common electrode 7b, the first common electrode 7a being integrally formed with the gate signal lines 4, the common electrode line 8 and others while the second common electrode 7b is located in a layer upper than those elements with the insulating layer 11 between. The first common electrode 7a and the second common electrode 7b are electrically connected to each other through a contact hole 22 defined in the insulating layer [[12*]] 11.

Please amend the paragraph bridging pages 31 and 32 as follows:

The first common electrode 7a is formed through a process similar to the processes of the foregoing embodiments. The contact hole 22 is formed at the same time that the insulating layer 11 at the end of the substrate 10 is removed to expose the terminal used for connecting the gate signal lines 4 to the external circuit. The second common electrode [[7a*]] 7b is formed simultaneously with the formation of the source signal lines 5, the pixel electrodes 6 and others. Accordingly, the liquid crystal screen display of the fifth embodiment can be accomplished without adding a new step to the fabrication process of the conventional liquid crystal screen display.